



Exploring the Role of Teachers' Job Performance in Enhancing Institutional Quality through Educational Technology

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Abstract:

Background: In recent years, educators have increasingly recognised the potential of technology to improve teaching and learning. As a result, technology integration in the classroom has become more common. The importance of teachers' work in improving school quality via the strategic use of technology is outlined in this abstract.

Objectives: Finding out what makes people do their jobs better so that schools may utilize technology to their advantage is the main goal of this study.

This is an experimental research. Five hundred pupils from West Bengali secondary schools chosen for the study. There were exactly two equal groups made up of the chosen sample. The two sets of students paired according to their average test results. The study's results show that effective use of technology in the classroom is greatly influenced by how well instructors do their jobs. Teachers in the experimental group had excellent technical competence and great pedagogical abilities, making them more suited to design stimulating and productive classrooms. Engaged, motivated, and successful students are the result of good instructional design and the capacity to modify pedagogical practices to make use of technology. Teachers in the control group lacked the necessary technology skills to adequately prepare themselves to design stimulating and productive classrooms.

Keywords: Job Performance, Quality of Institution, Technology in Education Experimental group, Control Group, Secondary School.

1. Introduction:

The quality of an institution is crucial in determining the academic achievement and personal growth of its students in the dynamic field of education. Improving teaching methods on a regular basis and incorporating new ideas that reflect current educational trends are crucial to reaching and sustaining high standards. The use of technology into classroom instruction is one game-changing element that has altered the nature of education. As more and more schools adopt technological solutions, it is the responsibility of educators to raise the bar for student learning by making effective use of available online resources. Teachers' effectiveness in the classroom is a key measure of how well schools use technology to improve students' learning, keep their attention, and raise their test scores. The importance of technology in education and how

it affects instructors' work performance as a motivating factor for improving an institution's quality is explored in this research. Researching the many aspects of technology integration and its effects on pedagogical practices, student engagement, faculty development, and the school overall is the goal of this project. This research seeks to provide light on the elements that affect the successful incorporation of technology into educational environments. It will highlight the ways in which technology provides benefits to educators, such as better assessment tools, the ability for more customized learning, and more collaboration among educators. Our findings about the transformative potential of technology in the classroom could be useful for administrators, lawmakers, and teachers alike. By enhancing teaching techniques and job performance via the use of technology, institutions may support student growth and prepare them for success in a world that is becoming digital and interconnected. Learning environments made dynamic in this way.

1.1. Need and Significance of the Study:

Educational institutions are experiencing a digital revolution due to the fast growth of technology. If we want to use technology to its full potential in raising educational standards, we must first understand how it affects teachers' work. There is a wide variety of technological resources available to educators today that may improve their methods of instruction. Finding the best practices that maximize learning outcomes achieved by studying how instructors successfully incorporate technology. In order to direct training and professional development programs, it is necessary to understand the connection between the use of technology in the classroom and teachers' work performance. Effective technology usage is ensured by equipping instructors with the appropriate skills and expertise. An institution's standing is directly affected by the calibre of its faculty. Positive institutional development and increased reputation may result from improving job performance via technology. Given the dynamic nature of education, it follows that research on "Job Performance of Teachers in Upgrading the Quality of Institution through Technology in Education" is crucial. It has the potential to provide light on how technology may improve education overall and how it can help teachers perform better in the classroom. Education institutions may actively use technology to enhance learning environments, optimize teaching techniques, and improve student results by recognizing the importance of this subject and its demands.

1.2. Statement of the Problem:

This study entitled as **"Exploring the Role of Teachers' Job Performance in Enhancing Institutional Quality through Educational Technology."**

1.3. Objectives of the Study

The research objectives of the study delineated below:

1. To examine the differences in job performance among experimental and control group in respect of using pedagogical skills for active engagement of students in classroom.
2. To assess the differences in job performance among experimental and control group in respect of ability to integrate technology into the curriculum to cater to individual student needs.
3. To measure the differences in job performance among experimental and control group in respect of using learning resources in teaching learning situation.

1.4. Hypotheses of the Study:

The research hypothesis of the study were delineated below:

H₀₁: In respect of using pedagogical skills for active engagement of students in classroom no noteworthy differences were found in mean scores among job performance of experimental and control groups.

H₀₂: In respect of ability to integrate technology into the curriculum to cater to individual student needs no significant differences exist in mean scores between job performance of experimental and control groups.

H₀₃: In respect of using learning resources in teaching learning situation no substantial differences exist in mean scores between job performance of experimental and control groups.

2. The Review of Related Literature:

Pa-alisbo, M. A. C. (2017). Modern Competencies and the Effectiveness of Educators in the Workplace. Submission to the Online Journal, 8(32), 7–12. According to the findings, educators have a modest level of proficiency when it comes to skills relevant to the modern world. In relation to the NCBTS, educators have rated themselves as very satisfied. A teacher's proficiency in the classroom correlates significantly with their effectiveness in the classroom. Finally, when categorised by profile, there is no discernible difference between the two. Consequently, the NCBTS is enhanced by the competencies of the educators. Because it is based on the blueprint for the Basic Education Sector Reform Agenda (BESRA), it has the potential to be an excellent instrument for evaluating performance on the job. Coupling with the NCBTS are the programs, projects, and initiatives of the DepEd. Instead than relying only on teachers' self-evaluations, DepEd should strictly enforce the triangulation approach of evaluating their performance on the job via rigorous monitoring at all levels.

Ulewicz, R. (2017). In higher education, the part that many stakeholders play in ensuring quality. Journal of Ergonomics and Human Resource Management, 11(1). Among the most important responsibilities of modern universities is the development and ongoing enhancement of educational quality. The purpose of this essay is to demonstrate how various groups inside and outside of universities have an impact on how excellence is defined in higher education. The literature and the author's personal research used to establish the responsibilities of each stakeholder group in the area of education quality assurance. Researchers from the Technical University of Czestochowa's Faculty of Management surveyed and interviewed faculty and students to compile their findings. Graduates, prospective employers in the Czestochowa region, municipal officials, and the local employment office were among the external parties polled. The findings highlight the significance of feedback particularly that which originates from the labour market, in endeavours aimed at improving education service quality.

Kontio, J. (2012). Educational initiatives' role in ensuring quality at universities. Page numbers 27–31 from the International Conference on Engineering Education. The overarching goal of this article is to shed light on educational initiatives and the part they play in ensuring the quality of higher education. We will not pretend to have all the answers on quality assurance in Europe, but we will do our best to provide some background. The study's authors provide the three educational programs (EUR-ACE, CDIO, and IDEA League) and the areas of concentration for each. In addition, we'll talk about and compare these projects with one another.

Adegbesan, S. O. (2010). Following a string of major failures and subpar outputs from our country's educational institutions, there have been many requests for educational administrators to improve the system's output quality. Newspapers, radio, and television programs in Nigeria, as well as religious and non-governmental groups, have covered these topics extensively throughout the years, sparking heated discussion and disagreement. They were worried about how the system is losing faith in its own efficacy and efficiency, which they voiced often. On the other hand, the purpose of this article is to talk about how educational administrators may make sure that schools in Nigeria are good. In light of this, the article delves into what

quality assurance is, how it implemented in the classroom, and lastly, how educational management in Nigeria can guarantee high standards in their institution's curricula.

Research Gap:

There is a dearth of research related to **“Exploring the Role of Teachers’ Job Performance in Enhancing Institutional Quality through Educational Technology.”**Therefore, researcher conducted investigation related to such statement of problem.

3. Methodology of Study:

The study relied on an experimental approach. In an experimental study, the experimental group receives a particular technique or therapy known as the experimental method of intervention. As a tool for gauging instructors’ contributions to the improvement of school quality, it is intended to assess the efficacy or influence of technological tools in the classroom. The two sets of students paired according to their average test results. In a study involving 500 students from 20 secondary schools in West Bengal, there was an experimental group of 250 students whose teachers instructed to use technology in the classroom, and a control group of 250 students whose teachers were instructed to use only traditional methods of instruction. The purpose of this study was to examine how the use of technology in education could improve the quality of education institutions and how effective teachers are in their jobs.

4. Analysis and Interpretation:

The analysis and interpretation of the study were conducted based on the hypotheses of the study.

H₀₁: In respect of using pedagogical skills for active engagement of students in classroom no noteworthy differences were found in mean scores among job performance of experimental and control groups.

The Mean Difference between the Groups In Respect of Pedagogical Skills by using t-test in Table No.1

t-Test: Two Sample Equal Variances Assumed			
Descriptive		Experimental Group	Control Group
1	Mean	112.11	103.19
2	Variance	222.86	206.03
3	Observation	250	250
4	Pooled Variance	214.13	
5	Hypothesized Mean Difference	0	
6	Df	498	
7	T Value	6.799	
8	P-Value at one-tail	1.53	
9	t Critical one-tail	0.0001	
10	P(T<=t) two-tail	0.0234	
11	t Critical two-tail	1.964807	

Source: Field Survey 2022-2023

Table 1 shows that the first experimental group had an average of 102.11 and the control group 103.19. There will be no difference in the anticipated means, and the combined variance will be 214.13. The findings show that the 't' statistic is more than the 't' critical, which is 1.964807, with a value of 6.799 (df= 498). Since the P value (0.0234) is lower than 0.005, we may also reject the null hypothesis. The results showed that various groups were not equally skilled at using their pedagogical talents to engage pupils in class. Using pedagogical abilities to actively engage students in the classroom, an independent sample t test showed a significant difference in mean scores between the control and experimental groups' task performance. Unlike their counterparts in the control group, teachers in the experimental group had access to fresh approaches to education. Teachers and instructors in the experimental group may have been more adept at using effective pedagogical tactics, which may explain why their students were more actively involved in the learning process. Teachers are inspired to explore new methods of instruction when technology is integrated into the classroom. Good news for students' education: classroom teaching has the potential to become more engaging and productive. Teachers have the option to use collaborative tools, online assessments, and interactive multimedia to create classrooms that are more interesting and accessible to all students. Using technology-enhanced teaching methodologies to improve learning outcomes and student satisfaction might increase the institution's reputation and attract more students in the long run. Students in the comparison group may not be as engaged or motivated to learn when exposed to more traditional methods of instruction, such classroom lectures. Rather than taking an active role in their own education, it often pushes pupils to passively absorb material. Possible impairment of analytical and problem-solving abilities. Due to their focus on knowledge transmission, conventional techniques neglected to prioritise modern-day abilities such as communication, collaboration, critical thinking, and creativity. Consequently, the experimental group reaped far more advantages than the control group.

H₀₂: In respect of ability to integrate technology into the curriculum to cater to individual student needs no significant differences exist in mean scores between job performance of experimental and control groups.

The Mean Difference between the Groups In Respect of Integrating Technology Into The Curriculum by using t-test in Table No.2

t-Test: Two Sample Equal Variances Assumed			
Descriptives		Experimental Group	Control Group
1	Mean	110.67	105.50
2	Variance	257.717	209.225
3	Observation	250	250
4	Pooled Variance	227.9800	
5	Hypothesized Mean Difference	0	
6	Df	498	
7	T Value	3.6852	
8	P-Value at one-tail	0.00012	
9	t Critical one-tail	1.647931523	
10	P(T<=t) two-tail	0.00025	
11	t Critical two-tail	1.964758283	

Source: Field Survey 2022-2023

In comparison to control group 2, the experimental group had an average of 110.67, as shown in table no. 2. Computing the 't' statistics yields a value of 3.6852 (df = 498), which is higher than the 't' critical value of 1.964807. Technology helps the experimental group's teachers and instructors with administrative duties, freeing them up to devote more time to lesson preparation and student-specific assistance. The effectiveness of educators' work may be enhanced by this efficiency. Students may better prepare for a technology-driven society by learning digital literacy and other 21st-century skills via curricular integration. They can access current instructional resources, integrate multimedia to make presentations more interesting, and better explain complicated ideas. Group projects, online debates, and peer-to-peer feedback are all ways that technology has made it easier for students to study together. A more engaging learning atmosphere is fostered by such group projects. Instead of encouraging students to think critically, solve problems analytically, and regurgitate information, conventional curriculum in the control group tend to place more emphasis on memorization and regurgitation. Students may not develop critical thinking skills or the capacity to creatively apply what they learn therefore. It was too stiff and unyielding to allow educators to adapt their lessons to each student's individual interests and demands. Traditional curriculum often fail to interest and entertain students because they do not provide enough opportunities for diversified and interactive learning.

H₀₃: In respect of using learning resources in teaching learning situation no substantial differences exist between mean scores of job performance of experimental and control groups.

The Mean Difference between the Groups In Respect of Learning Resources in Teaching Learning Situation by using t-test in Table No.3

t-Test: Two Sample Equal Variances Assumed			
Descriptives		Experimental Group	Control Group
1	Mean	179.7541667	171.1615385
2	Variance	416.0271792	355.410098
3	Observation	250	250
4	Pooled Variance	384.5014281	
5	Hypothesized Mean Difference	0	
6	Df	498	
7	T Value	4.879963364	
8	P-Value at one-tail	0.00141	
9	t Critical one-tail	1.647994976	
10	P(T<=t) two-tail	0.04563	
11	t Critical two-tail	1.964857173	

Source: Field Survey 2022-2023

According to Table 3, the control group averaged 171.1615, whereas the experimental group averaged 179.754. We find that the 't' statistic is 4.8799 (df=498), which is higher than the 't' critical, which is 1.964807, according to the computations. In the experimental group, students benefit from instructors' use of a wide range of learning tools because it gives them exposure to the material from several angles, which strengthens their grasp of the material and ultimately leads to better learning outcomes. Various learning styles and preferences accommodated by modifying learning materials. Adapted materials may help students

who learn best in different ways, such as those who are auditory, visual, or kinesthetic. Teachers might be motivated to be more creative when they have access to varied learning materials. Innovative ways to education might emerge because of their freedom to experiment with different resources and teaching techniques. For the control group, conventional resources often adhere to a standardised approach that may not accommodate unique student demands and learning styles. As a result, it may become more challenging to cater to the interests and talents of individual pupils. In industries where new developments occur at a dizzying rate, printed materials grow stale in a flash. This may make it more difficult to provide pupils with current and accurate information. When students rely on traditional resources, they run the risk of becoming information consumers rather than creators of their own knowledge. This may make it harder to think critically and solve problems. Therefore, compared to the control group, the experimental group showed significant benefits.

5. Conclusion

How effectively educators carry out their responsibilities to improve educational institutions via the use of technology has a significant impact on the overall quality of education and its outcomes. In light of the fact that technology is continuously changing the educational environment, it is essential to understand how its integration affects teacher effectiveness in order to design engaging and productive learning settings. This study's findings suggest that teachers have more options than ever before when it comes to employing technology in the classroom to address students' needs, particularly when it comes to fostering an environment that encourages student participation and innovation. The results of this flexibility include more effective teaching strategies and more active participation from students. Technology has expanded the learning opportunities for both students and teachers beyond traditional classroom settings. Taking part in these kinds of initiatives encourages critical thinking, creativity, and teamwork. Institutional excellence attained by investing in and supporting the continuous growth of teachers' technical abilities in order to maximize the positive impact of technology on teaching practices, student outcomes, and overall technology use. The study's findings stress the need of using technology's educational potential in order to prepare the next generation for a world where digital connections play a pivotal role. The ability of our educational institutions to adjust to the constantly evolving educational landscape depends on the collaborative efforts of educators, lawmakers, and stakeholders.

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